

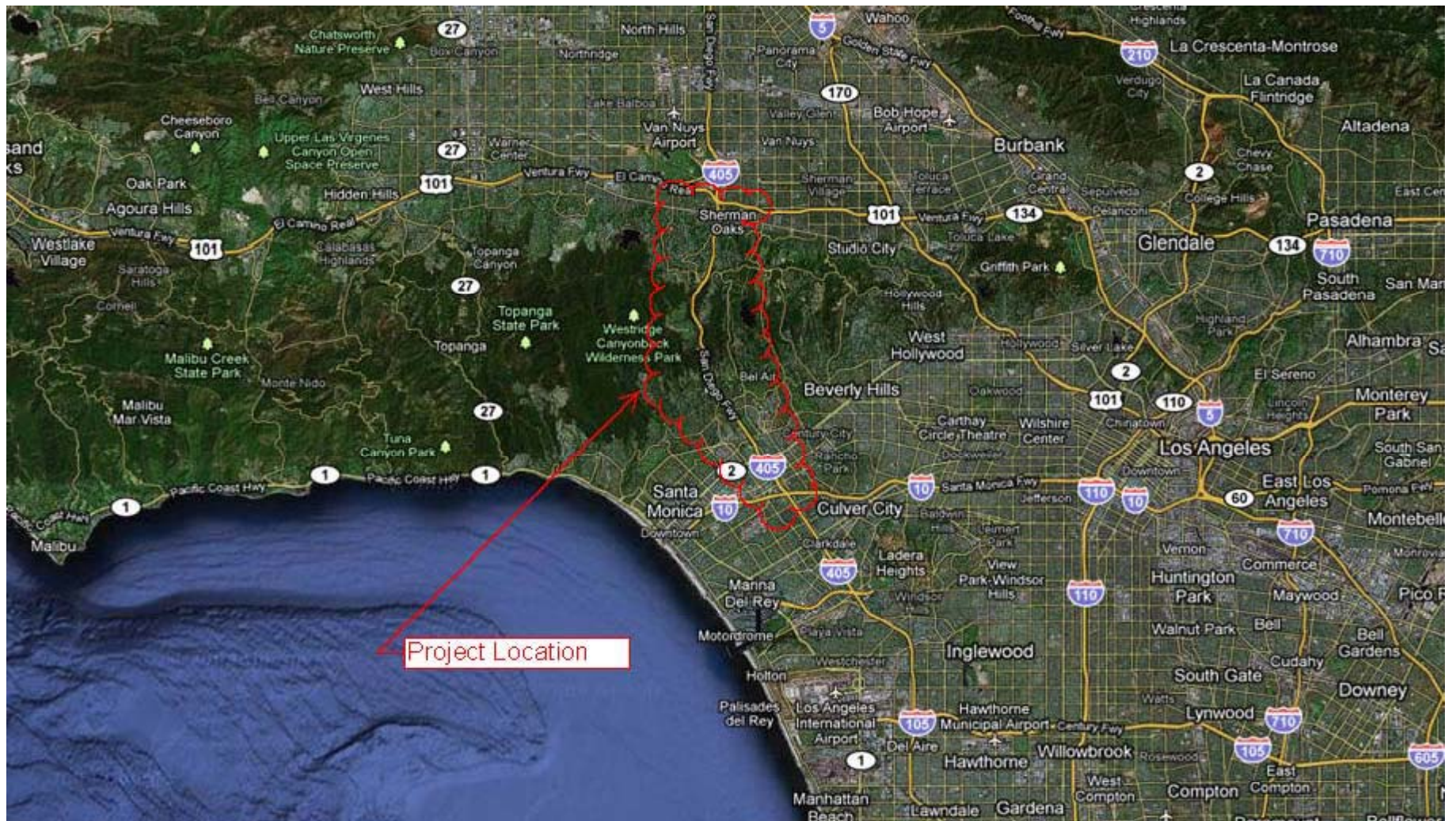


ROUTE 405 SEPULVEDA PASS WIDENING PROJECT Precast Overview

PCMAC MEETING – November 03, 2010

**Jon Hamaguchi, PE – Caltrans
Y. Nien Wang, PE – HNTB Corporation**





Project Area Vicinity Map

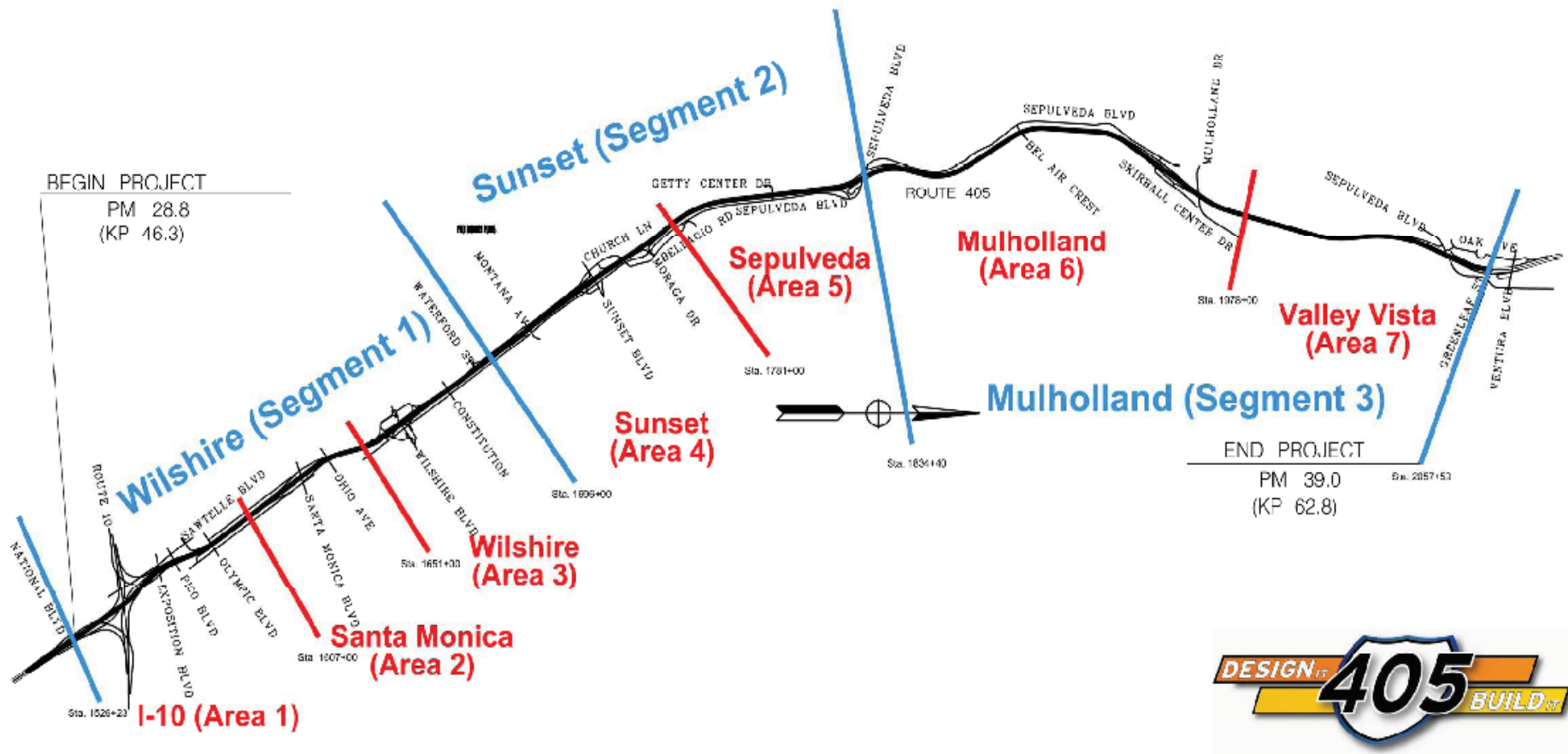


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Project Area Location Map



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View North at Route 405 / Route 10 Interchange



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View North at Route 405/ Montana Avenue



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View South at Route 405 / Sepulveda Boulevard



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View North at Route 405 / Skirball Center Drive



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I-405 Stake Holders

- Metro
- Caltrans
- City of Los Angeles
- County of Los Angeles
- Metropolitan Water District
- Phone Companies
- Gas Company
- Los Angeles City Dept. of Water & Power (LADWP)
- Petroleum Companies



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Project Team

Owner – Metro/Caltrans

Contractor – Kiewit Pacific Company

Precast Girder : CONFAB

MSE wall Panel : SURECAST

Precast Driven Pile : KIE-CON

Precast RCB/RCP Vault : PRE-CON

Inlet : PRO-CAST

Designer - HNTB Corporation w/ support by IDC/WKE

Bridge Geotech – Earth Mechanics Inc.

Wall Geotech – Kleinfelder



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Contract

- Bid - 739 Million (10 Miles)
- Bid Opening – Feb. 20, 2009
- Notice To Proceed(NTP) – June 2, 2009
- 1550 Calendar Days From NTP
- Completion Date – Nov. 27. 2013
- Liquidated Damage (LD) - \$120,000/day
- Incentives - \$120,000/day (180 days max.)



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Major Quantities

- 26 Bridges (Replacement and Widening Bridges)
- 68 Retaining Wall - 927,000 SF/53,000 LF
- 27 Sound wall - 27,000 LF
- Cast-in-place Concrete – 110,000 CY
- Excavation - 900,000 CY
- Backfill/Embankment – 600,000 CY
- Bridge Piling - 86,000 LF



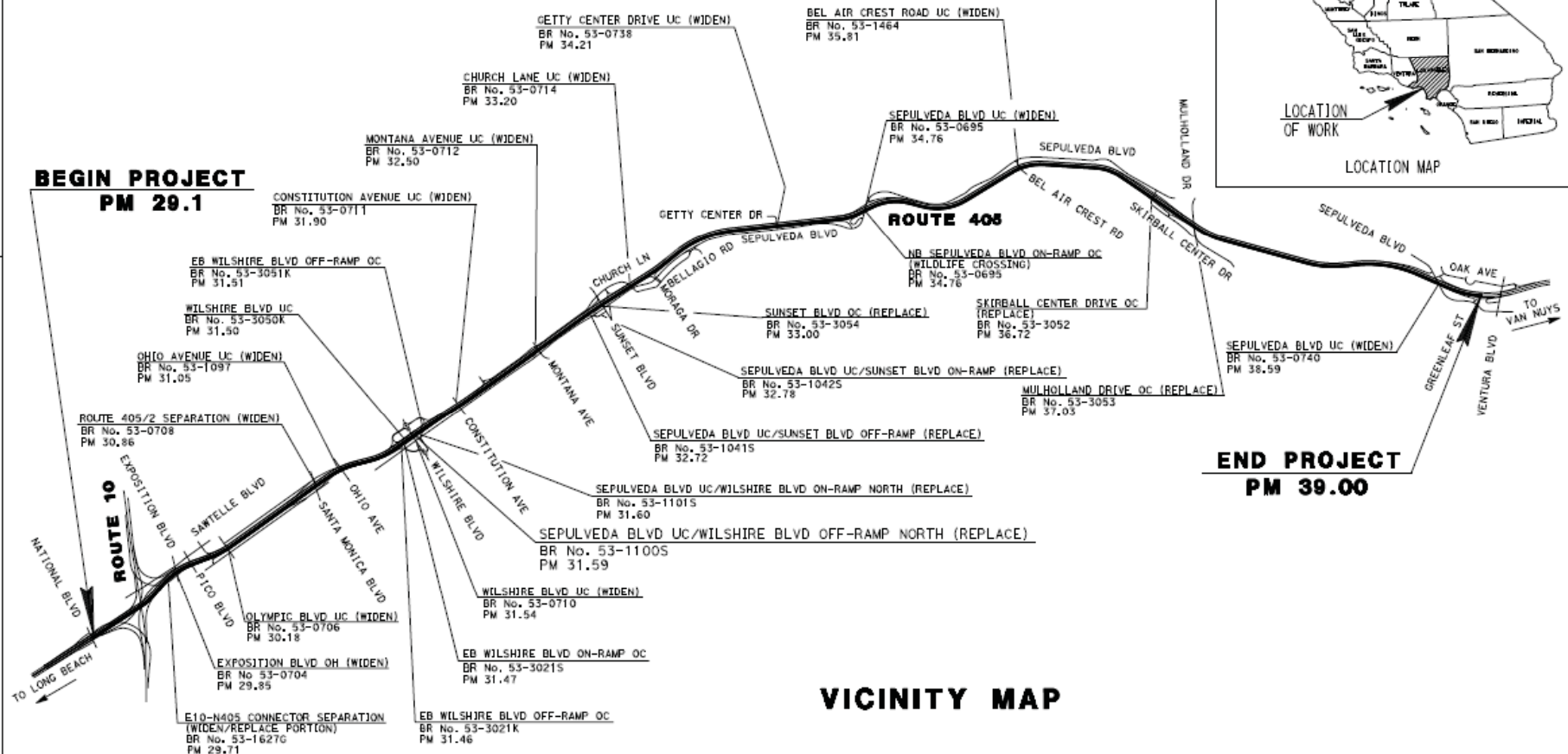
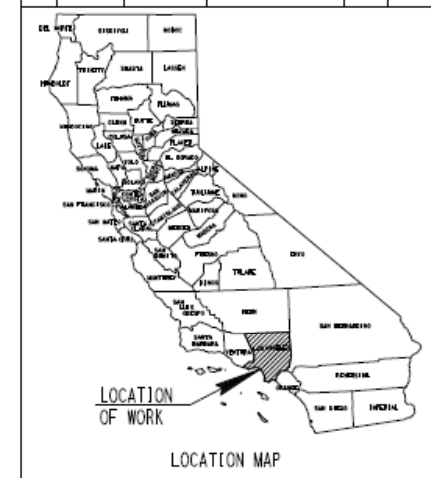
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DIST	COUNTY	ROUTE	LOCAL PROJ TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	405	29.1/39.0		



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Bridge Matrix

LEGEND

-  BRIDGE UNDERCROSSING LOCATION
-  BRIDGE OVERCROSSING LOCATION
-  RAMP LOCATION

Symbol	Kiewit Bridge #	Bridge Name	CT Bridge #
	1	Northwest Connector at I-10 /Exposition Boulevard UC	53-1627G
	2	Exposition Boulevard / Pico Boulevard UC	53-0704
	3	Olympic Boulevard UC	53-0706
	4	Santa Monica Boulevard UC	53-0708
	5	Ohio Avenue UC	53-1097
	6A / 6B	EB Wilshire Boulevard OFF-RAMP	53-3050 / 53-3051
	7	EB Wilshire / Sepulveda Boulevard OFF-RAMP	53-3021K
	8	EB Wilshire / Sepulveda Boulevard ON-RAMP	53-3021S
	9	Wilshire Boulevard UC	53-0710
	10	Sepulveda Boulevard/Wilshire OFF-RAMP	53-1100S
	11	Sepulveda Boulevard/Wilshire ON-RAMP	53-1101S
	12	Constitution Avenue UC	53-0711
	13	Montana Avenue UC	53-0712
	14	Sepulveda /Sunset Boulevard OFF-RAMP	53-1041S
	15	Sepulveda /Sunset Boulevard ON-RAMP	53-1042S
	16	Sunset Boulevard OC	53-3054
	17	Church Lane UC	53-0714
	18	Getty Center Drive UC	53-0738
	19	Sepulveda Boulevard 1 UC	53-0695
	20	Bel Air Crest Road UC	53-1464
	21	Skirball Center Drive OC	53-3052
	22	Mulholland Drive OC	53-3053
	23	Sepulveda Boulevard 2 UC	53-0740



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Bridge Location Map



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Contract Precast Elements

- Precast Bulb-T Girders
- Precast I Girders
- Precast Deck Panel (as Deck Form)
- MSE wall Panels
- Precast Driven Piles
- Precast Drainage/Utility Vaults
- Others



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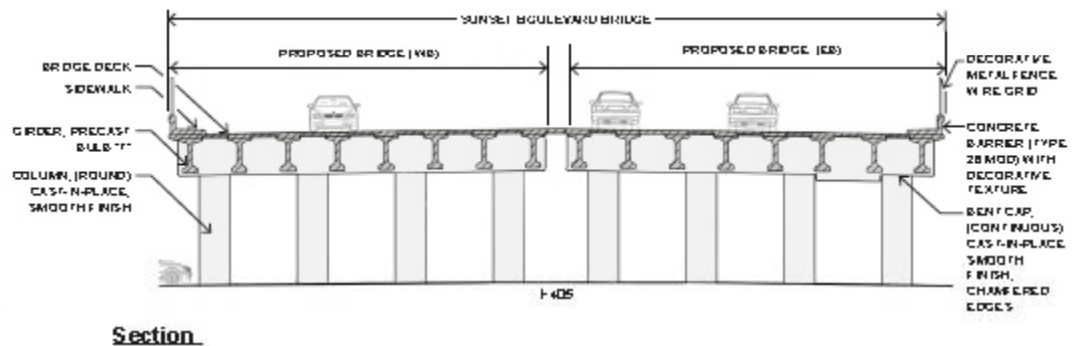
Sunset Blvd OC



Conceptual Visual Simulation (South Elevation)



Conceptual Visual Simulation (Enlargement)



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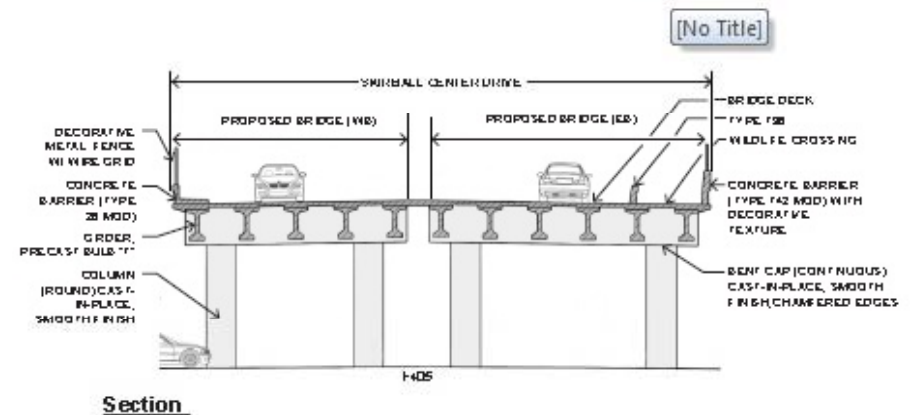
Skirball Center Drive OC



Conceptual Visual Simulation (South Elevation)



Conceptual Visual Simulation (North Elevation)



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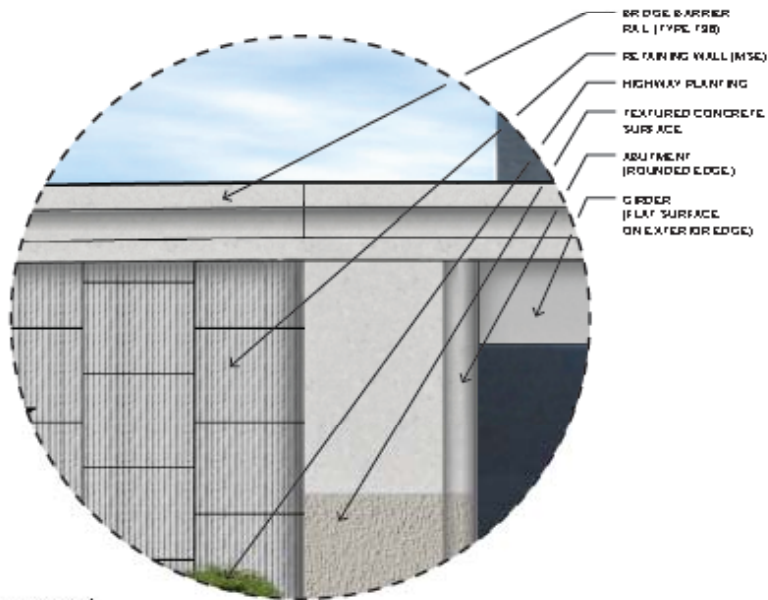
Metro

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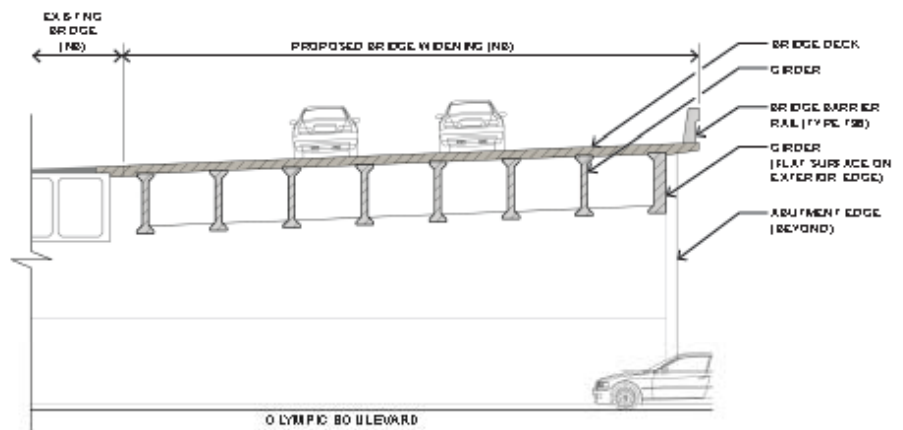
Olympic Blvd UC



Olympic Boulevard UC Elevation



Enlargement



Section (Typical)



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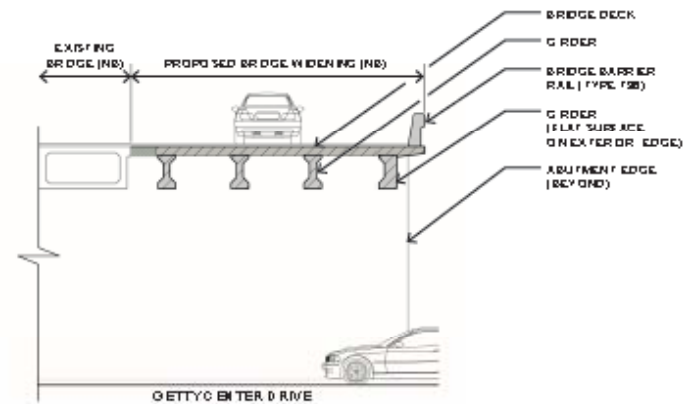
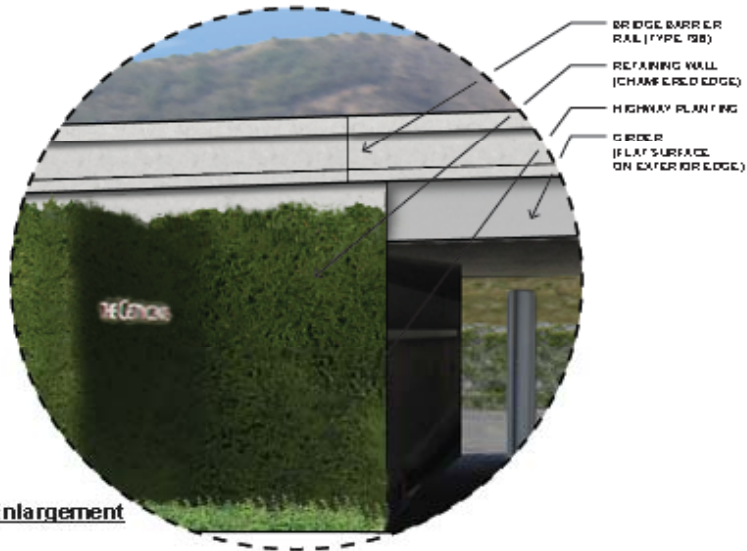
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Getty Center Drive UC



Getty Center Drive UC Elevation



Section (Typical)



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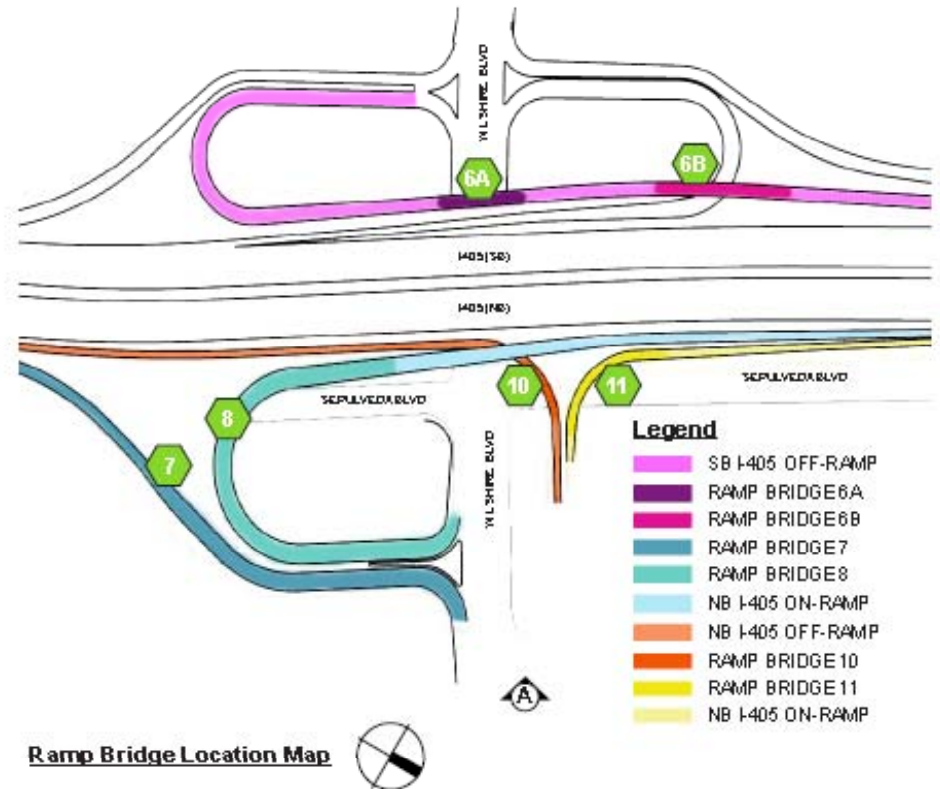


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 **Aerial Photograph - Existing Condition**



Wilshire Boulevard Underpass



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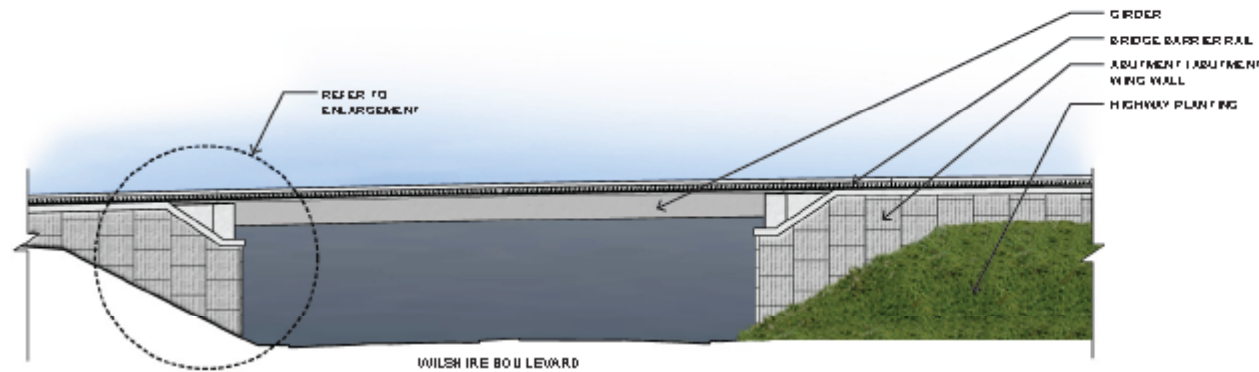
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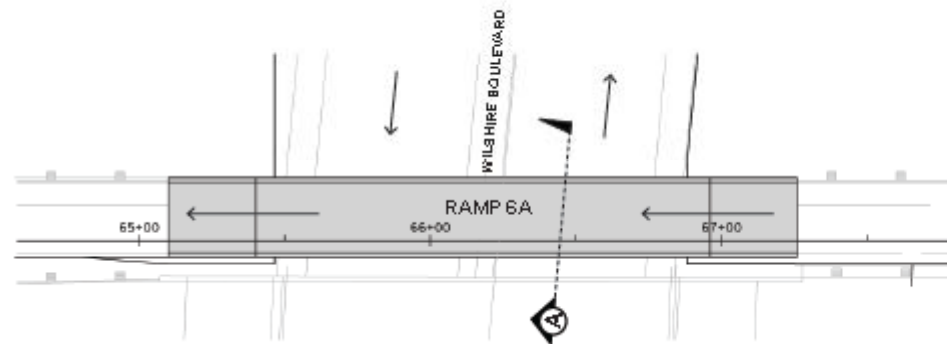


COMPONENT MATRIX

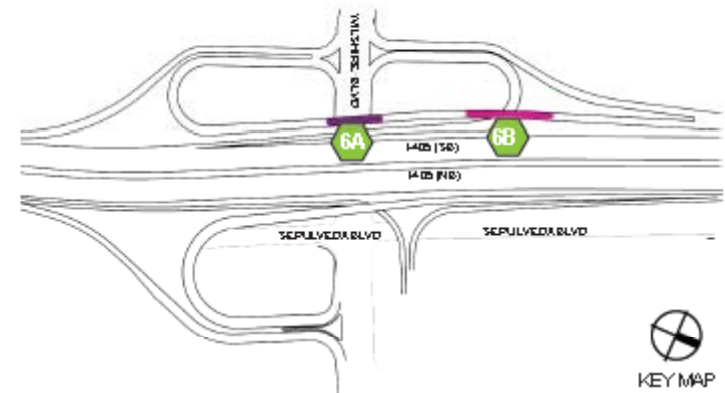
BRIDGE RAMP NAME: RAMP BRIDGE 6A / 6B BRIDGE RAMP NUMBER: 62-2060 K / 62-2061 K	
BRIDGE COMPONENT	PROPOSED AESTHETIC TREATMENTS
ABUTMENT AND WING WALL	* ABUTMENT AND ABUTMENT WING WALL: MSE PANEL, FRACTURED FIN TEXTURE, GREY COLOR
BENT CAP	* N/A
BRIDGE BARRIER RAIL	* TYPE 736 MOD, DECORATIVE EXTERIOR RAILING TEXTURE, GREY COLOR
COLUMN	* N/A
GIRDER	* STEEL GIRDER, ZINC COLORED PAINT FINISH
RETAINING WALL	* N/A



Elevation



Plan View



Wilshire Boulevard Underpass

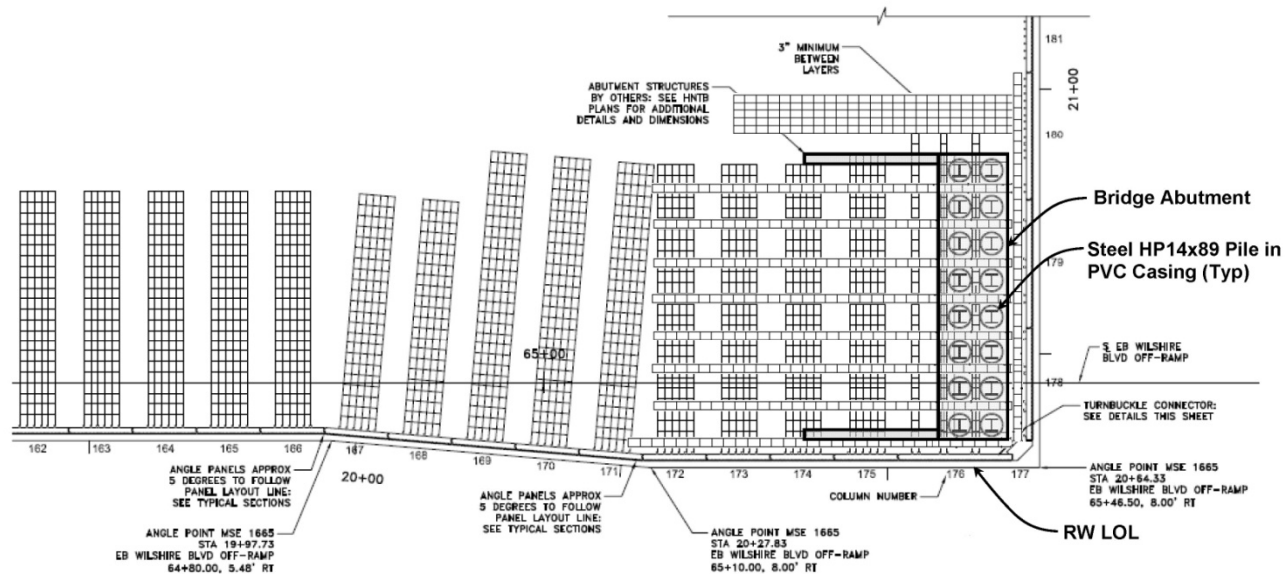


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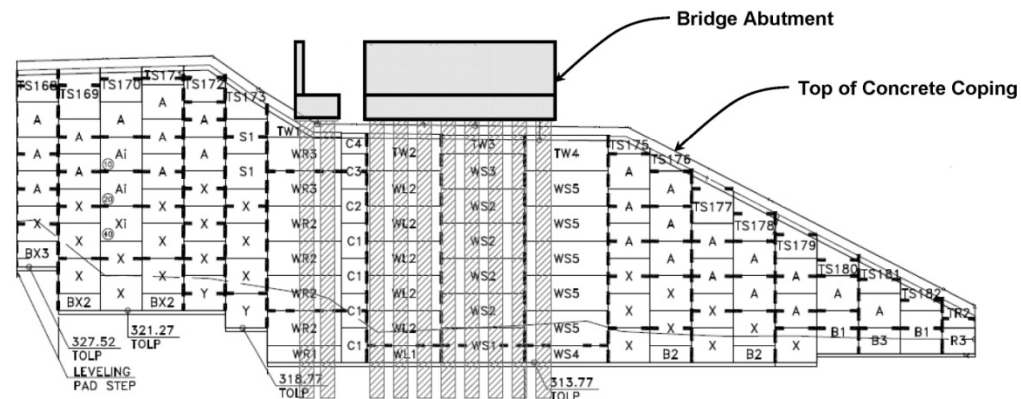


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Plan



Developed Elevation

Wilshire Boulevard Underpass – MSE Wall Abutments

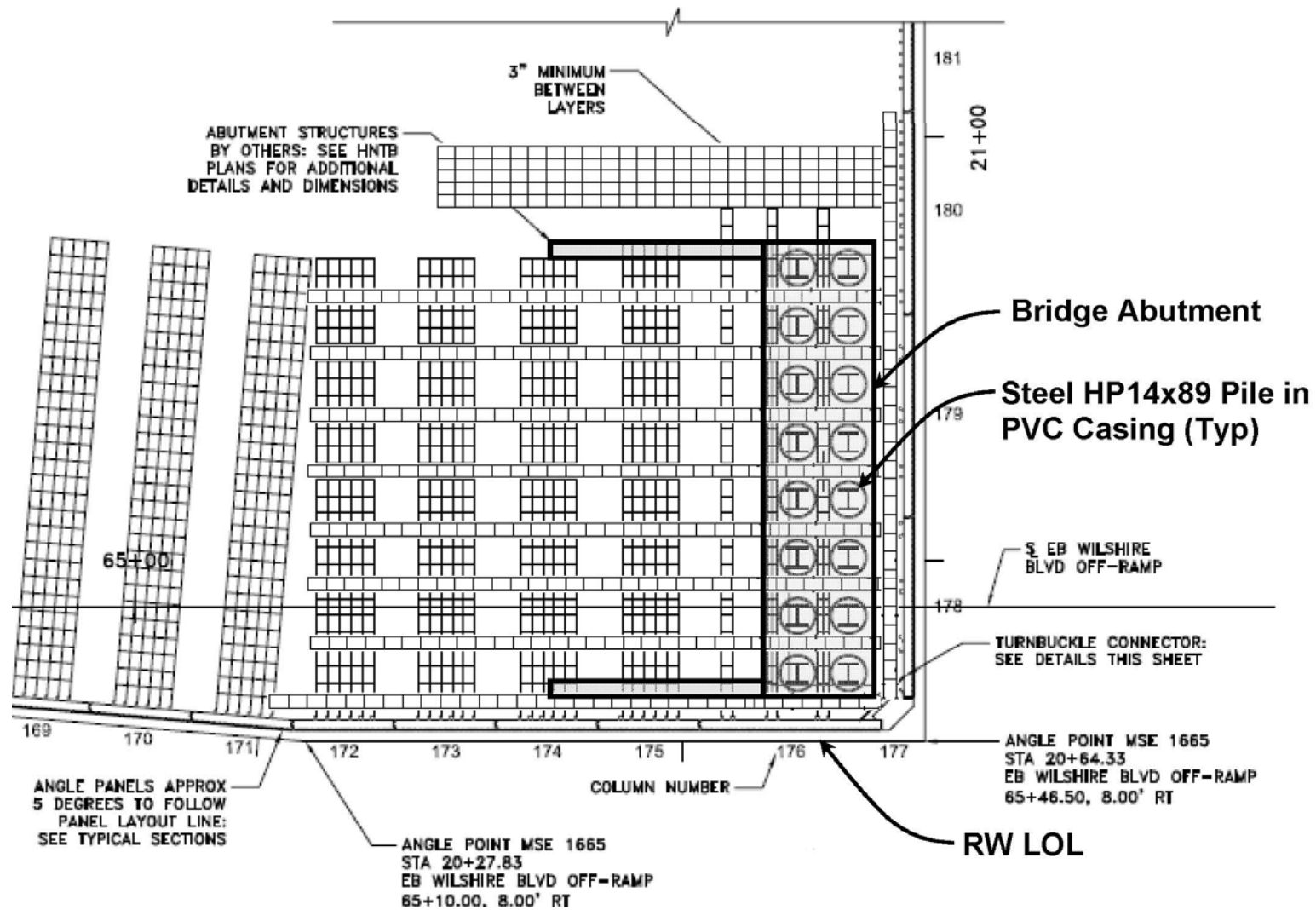


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Wilshire Boulevard Underpass – MSE Wall Abutments



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Bridge 6 MSE Wall Panels



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Bridge 6 Abutment Piles & MSE Wall



8/2010 I-405 PROJECT
REINFORCEMENT MESH AND
BACKFILL MATERIAL IS PLACED
AROUND PILES AT MSE WALL 1665
(BRIDGE 6A, ABUTMENT 1).



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Bridge 6 MSE Wall Placement



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Corner Treatment
- Smooth Finish Concrete

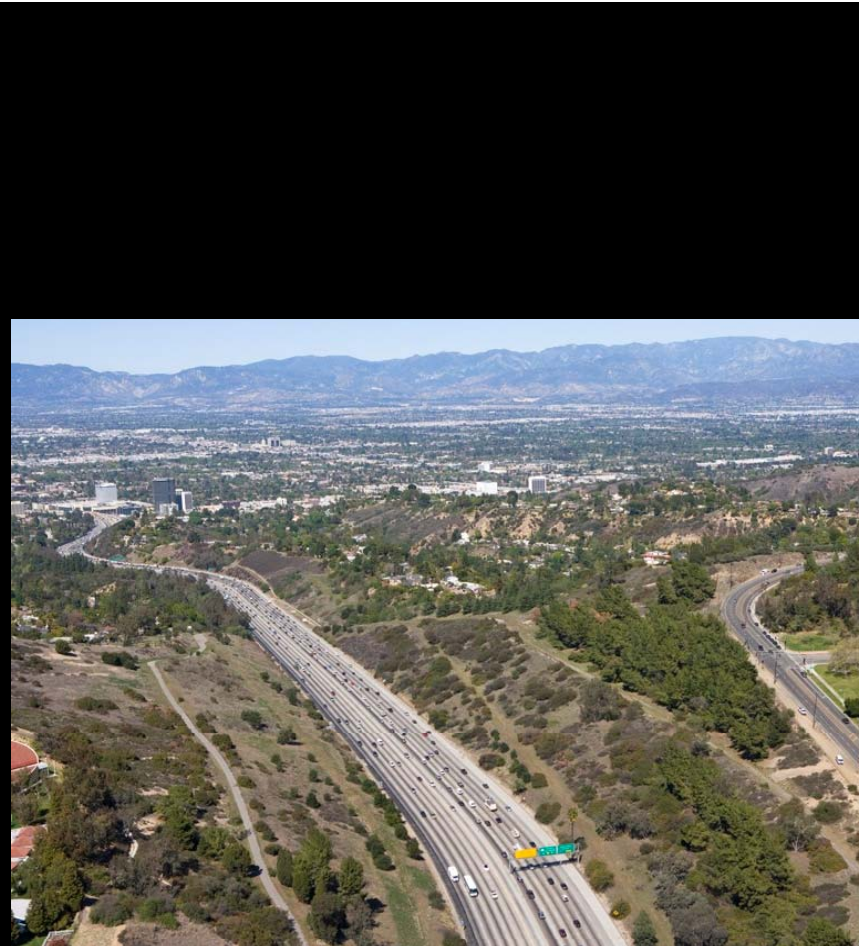


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Soil Nail Walls



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Soil Nail Walls



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Why Precast

- Material Cost
- Shipping/Handling Cost
- Construction Cost
- Long Term Maintenance Cost
- Quality Control



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Precast vs. Design-Build

- Precast process begin right after the design is approved
- Schedule advantage when controlled by Contractor
- Cost advantage by combining designer with builder
- Reduce/Eliminate lane closure time/delay
- Reduce/Eliminate MOT cost



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Exist Sunset Blvd Partial Removal



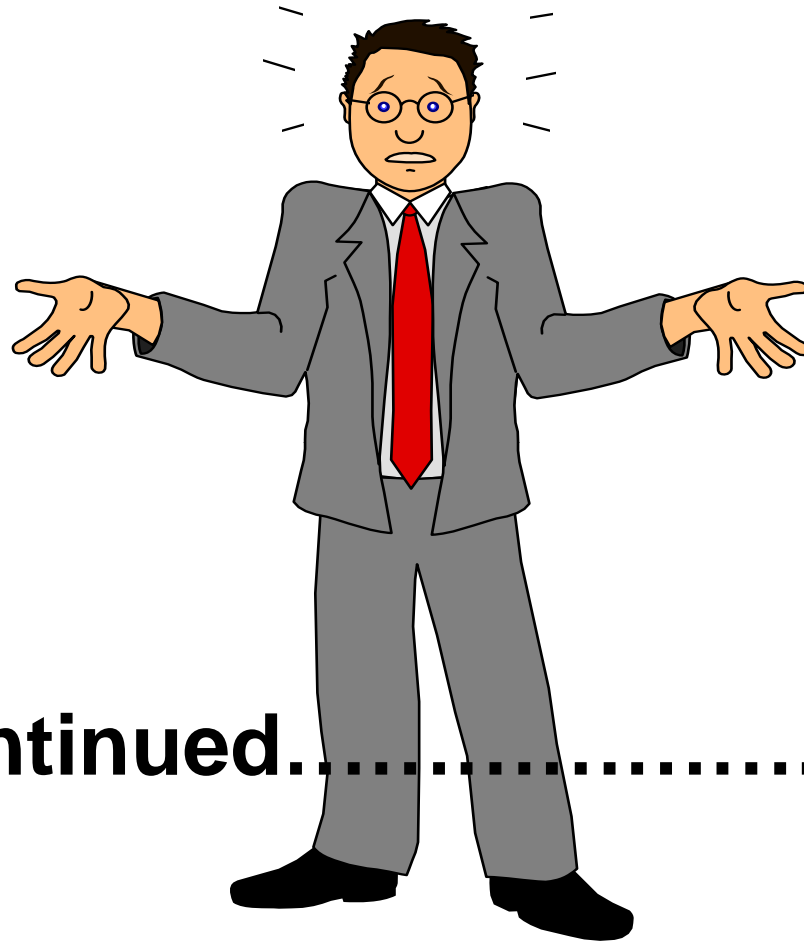
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<http://www.metro.net/projects/I-405/>



To Be Continued.....

Questions !!!